

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re: Jonathan R. Coppeta Confirmation No: 2283

Application No: 10/007,502 Group: 1765

Filed: November 8, 2001 Examiner: Ahmed, Shamim

For: Method for Fabricating Micro
Optical Elements Using CMP

Customer No.: 25263

Attorney Docket No.	1099us
------------------------	--------

REPLY BRIEF UNDER RULE 41.41(a)(1)

Commissioner for Patents

P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

This is the Applicants'-Appellants' Reply to the Examiner's Answer of May 30, 2007.

The following summarizes claim limitation distinctions that were presented in the Appellants' Brief and unanswered in the Examiner's Answer.

Relative to Claim 1

As pointed out in the Appeal Brief, the applied references teach the use of mechanical wafer polishing to planarize—make flat wafers. In contrast, the present claim invention requires: forming topographic features and then polishing, modifying the features into curved optical surfaces.

In response to this point, the pending Examiner's Answer in effect argues, on page 6, that: since it is known that lenses can be made with chemical polishing (Kane Patent) and the Hawkins Patent teaches that mechanical polishing can be used to planarize or make a flat surface, it would be obvious to use mechanical polishing to make curved

optical surfaces, as claimed. The crux of the argument seems to be the following statement from page 6 of the Answer:

One of ordinary skilled in the art would recognize that chemical etching and mechanical polishing are equivalent in method for a wide range of applications, not only planarization. For example, applicant admits that it is known that mechanical polishing can shape substrates (see specification page 6, lines 3-10).

This assertion is flawed for two reasons:

Factually, nothing in the record supports the assertion that chemical and mechanical polishing are equivalent to each other. In fact, the references seem to suggest the opposite conclusion. And, even if they were equivalent, why would one skilled in the art deviate from the teachings of the Kane Patent, concerning the production of curved optical surfaces using chemical polishing, to use the planarizing mechanical polishing of the Hawkins patent to produce curved surfaces.

The arguments of the Answer seem inapposite.

Relative to Claim 3

As pointed out in the Appeal Brief relative to claim 3, none of the references suggests the formation of blind holes.

The Reply does not seem to dispute this assertion.

Relative to Claim 6

As pointed out in the Appeal Brief relative to claim 6, none of the references suggests etching to a material layer.

The Reply does not seem to dispute this assertion.

Relative to Claim 18

As pointed out in the Appeal Brief relative to claim 18, none of the references suggests the formation of orthogonal side walls.

The Reply does not seem to dispute this assertion.

Summary

For these reasons and those expressed in the Appeal Brief, Applicants-Appellants continue to believe that the above-discussed claims and the other pending claims, are not anticipated by the applied references.

Should any questions arise, please contact the undersigned.

Respectfully submitted,

By grant houston
J. Grant Houston
Registration No.: 35,900
Tel.: 781 863 9991
Fax: 781 863 9931

Lexington, Massachusetts 02421
Date: July 30, 2007